

CEC Forecasting Workshop

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Grid Modernization, Planning & Technology

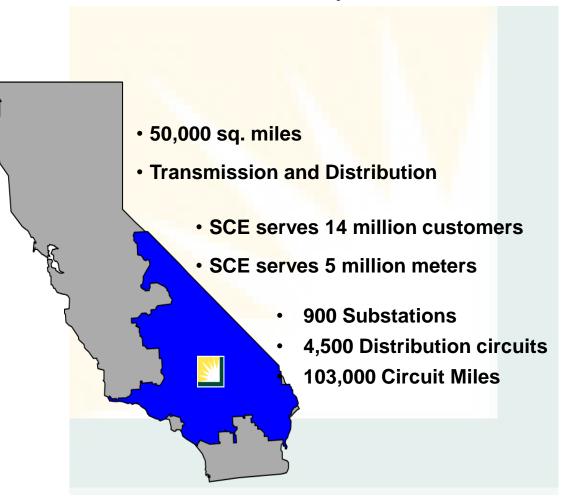
Planning & Operations Modernization

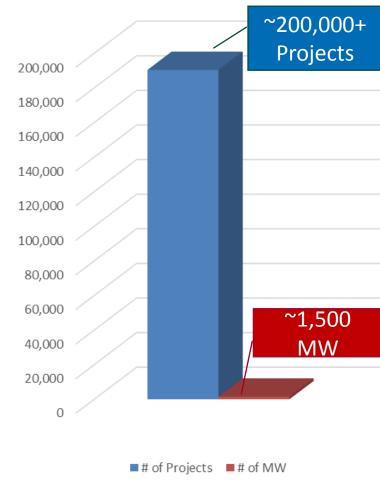


SCE Overview

SCE's Territory

SCE's NEM Portfolio







Capabilities of a Modern Grid

The Distribution Grid will require new capabilities to have better awareness of what is happening on the grid at all times, and be able to plan for various conditions



Monitor

- Real Time Situational Awareness
- Power Quality Awareness
- Distribution Load Flow Analysis





Control

- Remote Circuit Reconfiguration
- DER Dispatching
- Micro-grid Management





Analyze/Predict

- Real Time Situational Awareness
- Short Term DER Forecasting
- Long Term DER Forecasting







Optimize

- Voltage Optimization
- Power Flow Optimizations
- Adaptable Protection



Utility Grid Modernization



Advanced Capabilities

Development of intelligent substations and advanced automation of distribution circuits



Technology Platforms

Improving the customer experience, infrastructure planning, and addressing Cybersecurity



Communications Networks

Expansion of fiber and radio communications to enable high speed and high bandwidth to support automation and analytics



Grid Reinforcement

Making the grid more robust through an integrated planning, asset management, and technology strategy



Types of Utility Forecasts

There are multiple types of utility forecasts. Each has slightly different focus, drivers, and considerations

Short Term Forecasting

Heavily influenced by weather conditions

- Demand Forecasting
 - Capacity or Reliability Focused
- Energy Forecasting
 - Energy Resource & Procurement Focused
- Long Term Forecasting

Influenced by weather, and other long term factors such as economics, land use, etc...

- Demand Forecasting
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 - Energy Resource & Procurement Focused

